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# मानक

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Mazdoor Kisan Shakti Sangathan

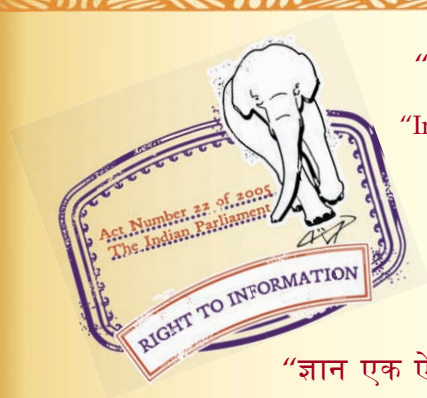
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“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 10620 (1983): Urd (Black Gram) Vada Mix [FAD 16:  
Foodgrains, Starches and Ready to Eat Foods]



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“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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IS : 10620 - 1983

*Indian Standard*  
SPECIFICATION FOR  
*URD (BLACK GRAM) VADA MIX*

UDC 664.696.9 VAD



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INDIAN STANDARDS INSTITUTION  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

# *Indian Standard*

## SPECIFICATION FOR

### URD ( BLACK GRAM ) VADA MIX

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*Indian Standard*  
SPECIFICATION FOR  
*URD ( BLACK GRAM ) VADA MIX*

0. F O R E W O R D

**0.1** This Indian Standard was adopted by the Indian Standards Institution on 28 July 1983, after the draft finalized by the Nutrition Sectional Committee had been approved by the Agricultural and Food Products Division Council.

**0.2** *URD VADA* is a very popular snack food item in India. *URD VADA* mix also offers export potential.

**0.3** The traditional method of making the *VADA* batter consists in grinding water-soaked black gram *DAL* to a thick paste in a typical heavy grinding stone. The dough is then made into *VADA* shapes and deep fried to a golden brown colour?

**0.3.1** The process of making *VADAS* with the mix involves making a dough with water, holding for sometime, and thereafter following the same procedure as for the traditional method. No fermentation of the mix or dough is required.

**0.4** In view of the labour involved in making the *VADA* dough by the traditional method, the use of *VADA* mix which eliminates the grinding process is gaining popularity. It was, therefore, considered desirable to formulate an Indian Standard Specification for this product, so that a mix of the right quality could be available to the consumers.

**0.5** In the preparation of this standard, due consideration has been given to the *Prevention of Food Adulteration Act*, 1954 and the Rules framed thereunder. Due consideration has also been given to the *Standards of Weights and Measures (Packaged Commodities Rules)*, 1977. However, the standard is subject to the restrictions imposed under these wherever applicable.

**0.6** For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in

## IS : 10620 - 1983

accordance with IS : 2-1960\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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### 1. SCOPE

1.1 This standard prescribes the requirements and the methods of sampling and test for *URD* ( black gram ) *VADA* mix.

### 2. TERMINOLOGY

2.1 For the purpose of this standard, *URD* ( black gram ) *VADA* mix shall mean the mix containing black gram *DAL* flour, edible common salt, sodium bicarbonate or other leavening agents, such as citric acid or tartaric acid.

### 3. INGREDIENTS

#### 3.1 Essential Ingredients

3.1.1 The *URD* ( black gram ) *VADA* mix shall be made from the following essential ingredients.

3.1.1.1 *Black gram DAL flour*

3.1.1.2 *Edible common salt* — Conforming to IS : 253-1970†.

3.1.1.3 *Sodium bicarbonate or any other leavening agent*

3.1.1.4 *Citric acid or tartaric acid*

#### 3.2 Optional Ingredients

3.2.1 The following optional ingredients may be used for the preparation of *URD* ( black gram ) *VADA* mix.

3.2.1.1 *MAIDA* — Conforming to IS : 1009-1979‡.

3.2.1.2 *Asafoetida*

3.3 The *URD* ( black gram ) *VADA* mix is made by grinding black gram *DAL* in a mill to obtain an appropriate combination of particles of different mesh sizes and mixing with known amount of *MAIDA* and suitable leavening ingredients.

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\*Rules for rounding off numerical values ( revised ).

†Specification for edible common salt ( second revision ).

‡Specification for *MAIDA* for general purposes ( second revision ).



## 4. REQUIREMENTS

**4.1 Description** — The *URD* ( black gram ) *VADA* mix shall be in the form of a white to off-white powder, free from rancidity, insect or fungus infestation and from fermented, musty or other objectionable odours. It shall also be free from any added colours and flavours.

**4.1.1** When tested by the method prescribed in Appendix A, the material shall be free from dirt and other extraneous matter.

**4.2 Microscopic Examination** — When subjected to microscopic examination, the material shall not reveal the presence of any foreign matter other than that specified in 3.

**4.3** The material shall be manufactured and packed in hygienic conditions ( *see* IS : 2491-1972\* ).

**4.4** The *URD* ( black gram ) *VADA* mix shall also comply with the requirements given in Table 1.

**TABLE 1 REQUIREMENTS FOR *URD* ( BLACK GRAM )  
*VADA* MIX**

Sl. No.	CHARACTERISTIC	REQUIREMENT	METHOD OF TEST, REF TO APPENDIX OF	
			This Stand- ard	IS : 2234- 1962*
(1)	(2)	(3)	(4)	(5)
i)	Moisture, percent by mass, <i>Max</i>	12.0	—	C
ii)	Total ash ( on dry basis ), percent by mass, <i>Max</i>	5.0	—	D
iii)	Acid insoluble ash ( on dry basis ), percent by mass, <i>Max</i>	0.4	—	E
iv)	Total protein, ( on dry basis ) ( $N \times 6.25$ ) percent by mass, <i>Min</i>	20.0	—	F
v)	Carbohydrates, percent by mass, <i>Max</i> ( <i>see</i> Note )	60.0	—	—
vi)	Crude fibre ( on dry basis ), percent by mass, <i>Max</i>	0.8	—	G
vii)	Leavening index, <i>Min</i>	1.25	B	—

NOTE — The carbohydrate content shall be calculated by difference, that is,  $100 - [ \text{percent of protein ( on dry basis )} + \text{percent of total ash ( on dry basis )} + \text{percent of crude fibre ( on dry basis )} ]$ .

\*Specification for *IDL* mix.

\*Code for hygienic conditions for food processing units ( *first revision* ).

## 5. PACKING AND MARKING

**5.1 Packing**—The *URD* ( black gram ) *VADA* mix shall be packed in flexible food grade pouches or in sound moisture-proof containers.

**5.1.1** The material may be packed in sizes as agreed to between the purchaser and the vendor.

**5.2 Marking** — Each container shall be suitably marked so as to give the following information :

- a) Name of the material;
- b) Name and address of the manufacturer;
- c) Batch or code number;
- d) Net mass;
- e) Directions for use;
- f) Date before which the material should be used (the date to be decided by the manufacturer); and
- g) Any other details required under the *Standards of Weights and Measures (Packaged Commodities) Rules, 1977.*

**5.2.1** Each container may also be marked with the ISI Certification Mark.

Note — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

## 6. SAMPLING

**6.1** Representative samples of the material shall be drawn and the conformity of the material to the requirements of the specification shall be determined according to the procedure given in Appendix C of IS : 10621-1983\*.

## 7. TESTS

**7.1** Tests shall be carried out in accordance with 4.1 and 4.2 and the relevant appendices specified in col 4 and 5 of Table 1.

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\*Specification for *JELEBI* mix.

**7.2 Quality of Reagents**—Unless specified otherwise, pure chemicals shall be employed in tests and distilled water ( *see* IS : 1070-1977\* ) shall be used where the use of water as a reagent is intended.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the results of analysis.

## APPENDIX A

( Clause 4.1.1 )

### DETERMINATION OF FREEDOM FROM DIRT AND EXTRANEOUS MATTER

#### A-1. PROCEDURE

**A-1.1** Take about 10 g of the material in a 250-ml beaker and add 100 ml of water. Stir the material with a glass rod to form a suspension and allow it to stand for 2 hours. Examine the supernatant water surface and bottom of the sediment for dirt or other suspended and extraneous matter.

## APPENDIX B

[ Table 1, Item(vii) ]

### DETERMINATION OF LEAVENING INDEX

#### B-1. PROCEDURE

**B-1.1** Add 100 g of mix with gentle stirring, into 250-ml water in a beaker and make a uniform batter without lumps. Transfer the batter to a 500-ml measuring cylinder and note the initial volume. Note the volume after 15 minutes.

#### B-2. CALCULATION

**B-2.1** Calculate leavening index as follows:

$$\text{Leavening index} = \frac{V}{v}$$

where

$V$  = final volume of the batter, and

$v$  = initial volume of the batter.

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\*Specification for water for general laboratory use (second revision).

( Continued from page 2 )

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